



Federal Highway Administration

Turner-Fairbank Highway Research Center

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Office of Research, Development, and Technology

October 2013





Turner-Fairbank Highway Research Center

- Turner-Fairbank Highway Research Center (TFHRC) occupies 44 of the original 581 acres in McLean, Virginia
- Started operation in late 1940s
- Named after Herbert Fairbank, Bureau of Public Roads (1944-1955) and Frank Turner, Federal Highway Administration (FHWA) (1969-1972)
- 110 Federal positions, 175 (+/-) contractors, National Research Fellows, visiting international researchers and Intergovernmental Personnel Act employees
- 20 laboratories and data centers
- Approximately \$100M in contracts and agreements managed by staff; split onsite/offsite





Research Coordination

Internal FHWA Program Corporate Research and Technology

- Research and Technology (R&T) Leadership Team
- Legislation and budget
- Library services

Internal FHWA Programs

- Small Business Innovative Research Program (SBIR)
- Strategic Highway Research Program (SHRP2)
- Transportation Pooled Fund Program (TPF)
- Exploratory Advanced Research (EAR)

Within U.S. Department of Transportation (USDOT)

Research and Innovative Technology Administration, modal agencies, USDOT R&T Planning Team, Joint Program Office/Intelligent Transportation Systems





Research Collaboration

Nationally

- State Planning and Research (SP&R) Program
- American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Research (SCOR) and Research Advisory Committee (RAC)
- Transportation Research Board (TRB): Core Program, RTCC, and other Advisory Committees
- National Cooperative Highway Research Program (NCHRP)
- University Transportation Centers (UTCs)
- Industry-sponsored research, development, and technology (RD&T)
- Cooperative Research and Development Agreements (CRADAs)
- National Science Foundation, National Institute of Science and Technology, Department of Defense, Department of State

Internationally

- Forum of European Highway Research Labs (FEHRL)
- European Commission





Communications and Conduct of Research and Development (R&D)

Communications

- National highway R&T coordination
- *Telling the R&T Story: The Value of Research*
- Public Roads magazine
- FHWA R&T and GoSHRP2 Web sites
- RSS feed for research and publication updates

Conduct of R&T

- Exploratory Advanced Research
- Safety
- Infrastructure
- Operations





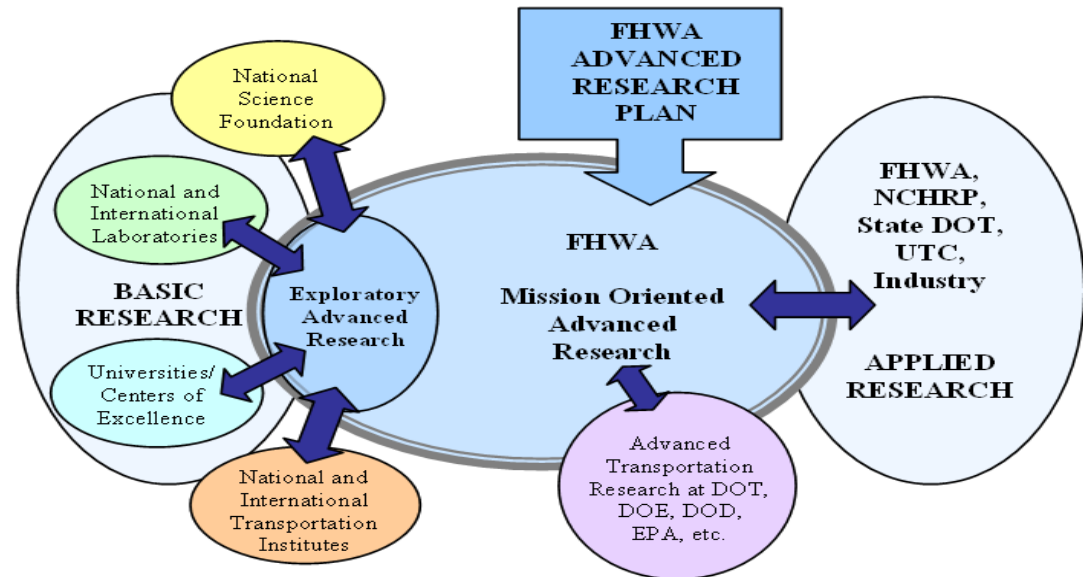
Exploratory Advanced Research

Status

- Solicitations: 7
- Projects awarded: 50
 - \$60 M Investment
 - \$43 M Federal
 - \$17 M Match

Focus Areas

- Integrated highway systems
- Nanoscale research
- Human behavior and travel choices
- New technology and advanced policies for energy and resource conservation
- Information sciences
- Breakthrough concepts in material science
- Technology for assessing performance





Safety Focus Areas



**Roadway Departure:
Prevention and Mitigation**



**Strategic Approach
To Safety**



Intersections

Human Factor Analysis Underscores All Challenges



Speed Management



Pedestrian Safety





Operations Focus Areas

Enabling Technologies



Concepts and Analysis



Improving Transportation with Intelligent Solutions



Operations Applications





Infrastructure R&T Focus Areas

Pavements



Structures



Materials



**Improved
Technologies for
Design,
Construction,
and Stewardship**

Nondestructive Evaluation



Visit us at
www.fhwa.dot.gov/research





Contact Information

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